

What is claimed is:

1. A trochoidal pump characterized in that an inner rotor 5 and an outer rotor 6 having trochoidal toothed shapes are provided in a mutually intermeshing state, in such a manner that a tip clearance is created between each tooth crest of the inner rotor 5 and the outer rotor 6, a large clearance forming a large interval being provided in at least one location of the group of said tip clearances.

2. The trochoidal pump according to claim 1, characterized in that the number of teeth of said inner rotor 5 is six or more, and a large clearance is formed between said inner rotor 5 and said outer rotor 6, on the plurality of tooth crests of said inner rotor 5, at least at every other tooth position.

3. The trochoidal pump according to claims 1 or 2, characterized in that, taking the number of teeth of said inner rotor 5 or outer rotor 6 as  $n$ , large clearances  $d_1, d_1, \dots$  are arranged in a uniform or non-uniform fashion on appropriate tooth crests 5a, 6a of said teeth.

4. The trochoidal pump according to claim 1, 2 or 3, characterized in that the number of teeth,  $n$ , of said inner rotor 5 is set to an even number, and a large clearance is provided every other tooth on  $(n/2)$  tooth crests.

5. The trochoidal pump according to claim 1, 2 or 3, characterized in that the number of teeth,  $n$ , of said inner rotor 5 is set to an odd number, and a large clearance  $d_1$  is

provided at least every other tooth position or every other two tooth positions, on  $((n-1)/2)$  tooth crests.

6. The trochoidal pump according to claim 1, 2, 3, 4 or 5, characterized in that there are a plurality of said large clearances  $d_1$ , and all of these large clearances  $d_1, d_1, \dots$  have the same interval dimension.

7. The trochoidal pump according to claim 1, 2, 3, 4 or 5, characterized in that there are a plurality of said large clearances  $d_1$ , and all of these large clearances  $d_1, d_1, \dots$  have mutually different interval dimensions.

8. The trochoidal pump according to claim 1, 2, 3, 4, or 5, characterized in that there are a plurality of said large clearances  $d_1$ , and at least one of all of these large clearances  $d_1, d_1, \dots$  has a different interval dimension to the other large clearances  $d_1$ .

9. The trochoidal pump according to claim 1, 2, 3, 4, 5, 6, 7 or 8, characterized in that said large clearances  $d_1$  are formed by retracting the circumferential edges of either tooth crests 5a of said inner rotor 5 or tooth crests 6a of the outer rotor 6.

10. The trochoidal pump according to claim 1, 2, 3, 4, 5, 6, 7 or 8, characterized in that said large clearances  $d_1$  are formed by retracting the circumferential edges of both tooth crests 5a of said inner rotor 5 and tooth crests 6a of the outer rotor 6.